# Castlemaine Naturalist

**April 2004**
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White-throated Needletails

## Aerial Display at Warburton's Bridge, Glenluce.

On Thursday 18th March at 9am Debbie Worland and I went to the above area hoping, as Debbie said, to see something different! It was a perfect sunny morning after an overnight low of 2 degrees, having been a maximum of 24 degrees the previous day.

We were not disappointed. As we opened the car door we heard a profusion of bird calls. Before we had time to check these out we noticed a flock of birds wheeling around in the distance, very high in the sky. The bright sunlight, even from that distance, was catching on a contrast of black and white very clearly. Great excitement: as they came closer we realised they were large groups of White-throated Needletails wheeling and swooping above the canopy in a feeding frenzy. Impossible to count but we estimated more than 80. Some ventured lower around the trees swooping over our heads at times. This brilliant display went on for over an hour, the birds gradually dispersing as we left.

Debbie and I had only seen them previously ahead of a storm, very high up, and in very poor light. We were surprised at their size, wingspan, and clarity of markings.

The Needletail migrates south across Torres Strait in October, returning in April. They spend most of the day high in the air, often out of sight of the ground, coming low usually in unsettled weather. The species is thought to remain in the air during its time in Australia but there are instances recorded of birds occasionally roosting. (1984 Atlas of Australian Birds)

That morning we saw 27 other species despite the Loddon being totally dry. There was a little water in a nearby dam and the Red Gums were in flower.

White-browed Scrubwren
Striated Thornbill
Yellow Robin
White-throated Treecreeper
Fuscous Honeyeater
Yellow-faced Honeyeater
Crimson Rosella
Dusky Wood-swallow
Musk Lorikeet
Magpie
Superb Fairy Wren
Crested Shrike-tit
Brown Treecreeper
Yellow-tufted Honeyeater
White-naped Honeyeater
Eastern Rosella
Grey Shrike-thrush
Red-rumped Parrots
Kookaburra
Australian Raven

Galah
Brown Goshawk
Common Bronzewing
Striated Pardelote
Long-billed Corella
White-faced Heron
Spotted Pardelote

Margaret Badminton

## Ellis Falls Excursion (on the Coliban River near Taradale), 13/3/03

The way in was dry and dusty, but as we drove through the gate onto private property we found we were looking at green treetops and down into a deep gorge in the basalt cliff. Unfortunately hawthorn and blackberries seemed to be the main plants though there were also Tree Violets, a native which belongs to the basalt areas. As we walked down the old road into the gorge several Grey Fantails flirted around near us, and we admired the great Manna Gums, which had to be identified by their buds which were grouped in threes. I, for one, thought they were Yellow Box because of the persistent rough bark, right up to the branches. (Yellow Box has clusters of more than three buds). Ern explained that in fire prone areas the gums with the persistent rough bark are the ones that survive fire best, and therefore are the source of seed for the next generation.

The river was low but quite a number of birds were making the gorge their home, including White-naped and Yellow-faced Honeyeaters, and Striated Pardalotes.

Next we walked for a short distance along the plateau to where the river takes a bend, and down to the waterfall. Hans was glad he hadn't made a bet that there'd be no water over the falls, but it really was only a very little trickle.

After afternoon tea sitting under the hawthorns most of us scrambled down to the ruins of an old mill on the opposite bank of the river. Now choked with blackberries it was hard to work out just where the water came from to run the mill or how the grain was delivered to it or the flour transported from it. Some thought that perhaps the crossing at the river hadn't always been so rough, or perhaps there had been an easier way up to the plateau behind the mill.

The whole area is a very pretty spot. It would be a great place to visit again after rain.

Rita Mills

## Cicadas

In his book, "The Australian Bird-Garden", Graham Pizzey describes cicadas as "hatching from eggs inserted in the living bark, they drop to the ground and begin their subterranean existence". This must have been the stage in the cicada's life cycle that Albert Golden was privileged to see recently (see observations).

Once in the ground the wingless cicada lavae use powerful pairs of spiked flattened forelegs for burrowing through the soil pushing the excavated soil behind them as they go. They use their large proboscis to feed on sugars and starches stored in the roots of trees and at this stage they look like "parchment covered beetles".

After several years underground the developing cicada nymphs emerge, probably triggered by the increased soil temperatures in summer. Leaving their pupa cases clinging to tree trunks, they makes their way to the tree canopy for the adult stage and where, if they are male, they begin to sing.

Cicadas are a great food source for mammals such as sugar gliders and for birds - ravens, currawongs, cuckoo shrikes, wattlebirds, friarbirds and shrike-tits all feed on them.

Geraldine Harris

## Kangaroobie Campout, March 5 - 8 2004

Part of the pleasure of these camps is catching up with old friends and meeting new ones, and this one was no exception. The weekend was well planned and run by the Timboon Field Nats, with Helen Langley in charge.

The Friday evening program was a talk on Little Penguins by Rebecca, a student at the Warrnambool Campus of Deakin University, using the digital projector. We learnt that they are the only Australian species of penguin, and the world's smallest species; that their blue-black backs protect them from predators, like kites, above, and white fronts protect them from predators, such as seals, below. We learnt they inhabit the waters and coast from the south western corner of Western Australia to northern New South Wales.

Regarding their breeding cycle, they usually use the same burrow year after year, and both birds share the incubation and feeding of the young, probably only one, though two eggs are usually laid. When eventually the chicks go out to sea they are on their own with no help from the parents, and they need to learn life skills very quickly. There is a high mortality rate at this stage, particularly this year as the breeding season was very late. We were told what they eat, the fact that they are opportunistic feeders, usually solitary when out at sea, but coming in every evening at dusk to return to their burrows together.

On the last evening there was a choice of two excursions; one to see the Short-tailed Shearwaters arriving back at their burrows and another to the Twelve Apostles to watch the penguins arrive. The sunset itself, with a magical light on the sea, would have been worth the trip even if we hadn't seen the penguins. First, just one bird arrived. It would reach the drier sand, hesitate, and turn tail back to the waves again on several occasions before setting off stolidly towards its burrow at a run. It sat there preening until there wasn't enough light to see more than a faint white blob amongst the vegetation. The others gradually followed in groups of 8 to20, making their minds up more quickly than the first one, to make their dive across the sand.

The talk on the second night, given by Christopher Grant (a PhD student also at Deakin University at Warrnambool), was on bats. He followed the history of human misconceptions and fears about bats with the different groupings. Microchiroptera (or small hand-wings because the membrane - which happens to be the quickest healing tissue of any animal - is stretched between long "fingers") are the little bats

which mostly use sonar and which we sometimes see hawking for insects at dusk; and Macrochiroptera which includes the "Flying Foxes" and rely largely on eyesight and feed on fruits. Their life span is up to 30 years. He concluded his talk by producing two species of Microchiroptera and showing us the features that he had been talking about, ie. the reason for the tiny sharp teeth down each side of the mouth with the gap in the middle. One bat was threatening to bite his hand off whenever it got the chance! They were eventually released where they had been trapped.

On Saturday morning, at the playground area in Peterborough, we were joined by Annie Fraser who entertained us with stories of her work as a wildlife carer. She had two fledgling penguins that had been two of only four to escape a fox attack which had killed about 40 birds in one colony.

Then we headed off to Crazy Kate, a beach below the cliffs a kilometre or so to the west, where we wandered in sprinkling rain for the next hour and a half with members of the Timboon club who were able to help with identification and add to our knowledge of shore life.

At the lunch stop we set up the stereo-microscope to look at seaweed, sea grass and sponges that we'd brought back. I was mystified by a fine black gravel found on an area below the cliffs, and geologist Noel Schleiger, who'd joined us for lunch, was able to identify it as limonite. He explained how it was formed and why it behaves as it does - that's one of the great advantages of these get-togethers.

In the afternoon I was with the group which went a bit further west to the Bay of Islands, and walked along the cliff top walk, taking in all the viewing platforms as we went to look at the fantastic cliff formations. Having Noel with us this time helped us understand the formation of the stacks, caves, arches and inlets of this intricately eroded coastline. Along the paths we even found some things in flower, such as Coast Banksia, Tiny Fan-flower and Coastal Daisy-bush, the latter being positively identified from a specimen under the stereo-microscope when we got back that evening.

On Sunday I was trailing along over the dunes on the way to see the Hooded Plovers when a Rufous Bristle-bird cross my path only 2.5 metres ahead of me – and I saw the plovers when I got down to the beach.

From there we followed our leader to Curdies Inlet, stopping at several spots to bird watch. Highlights for me were the Striated Field Wren, the Pied Stilts and Red-necked Stints. We walked to a spot through Annie Fraser's property, and were shown one of her young penguins which had just had its daily swim and was happily preening in its box. Once it reaches 1kg it will be released back where it was found, because if released locally it will never really settle - according to Annie, it will always be a "street kid"!

Lunch this time was at Glenample Homestead with its ancient house and huge old cypresses. Superb Fairy Wrens hopped around near us as we ate. Many of us went on to Kennedy's Creek where we visited an old sand quarry and were shown several

orchid species, some no longer flowering, but with well developed seed pods and the sepals still intact (Horned Orchids) and three different Midge orchids, including a species restricted to that area. There had been sun orchids too, but they had finished and the seeds scattered. Our leader, Kylie Treble, knew the area well. What a joy it is to be with knowledgeable people when you don't know the area. I would never have found this spot on my own, and I would never have found some of the plants we saw - I had even missed the Button Grass until someone pointed it out. But then, I hadn't registered that we have Button Grass in Victoria. That belongs, in my mind, to Tasmania - and seeing it brought back memories, and inspired reminiscences, of the Club walk from Cradle Mountain to Lake St Clair five years ago.

Our last outings on Monday were all at or near Timboon, and I chose to walk along the Rail Trail, from the Trestle Bridge into Timboon Railway Yards picnic area, with Charlene, Helen's sister, as leader. Our leader's comment at the end of the walk was that she didn't think she was going to be able to get us away from the bridge area because the birding there was so good. Just in that area alone we saw Sittellas, Grey Fantails, White-eared, Yellow-faced and White-plumed Honeyeaters, a White Goshawk, Red-browed Finches, another Striated Field Wren, Goldfinches, Spotted and Striated Pardalotes, Golden Whistler, Gang Gang Cockatoos, Crimson Rosellas and a Yellow Robin! For the whole walk we reached a total of 41 species. If you are a birdo, or just like wonderful forest scenery, this 4km walk is one not to be missed.

I eventually left at 2 o'clock and set off for home via Camperdown and Cressy. I arrived home very weary, but it was such an enjoyable, friendly and informative weekend that it was well worth it.

Rita Mills

## Observations

- Peter Bassett has been feeding his lambs in a paddock behind his house at Campbells Creek with hay from natural pasture. Over the last two or three years he hasn't sighted any **Bronzewings**, and the most he has ever seen is six – but now he is seeing more and more. On March 9 he reported having had 20-22 birds feeding on the seeds in the hay, and on March 11 he photographed 38 and two more arrived as he stood there. Rita Mills
- Stuart Morris brought along branches from a **Linden Tree**, growing 60-75ft. in his backyard, to show the attractive pale green bracts where the flowers develop.
- Margaret Badminton has had two **Purple-crowned Lorikeets** on her block of land near the Castlemaine Golf Course.
- Chris Morris sighted **Fork-tailed Swifts** near Daylesford.
- Chris Morris also relayed to members that one of the most extraordinary events regarding migratory waders in Australia in recent years occurred in early February this year. Members of Birds Australia counted between **2.4 and 2.8 MILLION Oriental Pratincoles** on the upper mudflats along 80 mile beach at Anna Plains Station n North Western Australia. Previous estimations of the total population of this bird were thought to be around 60,000!
- Albert Golden shared with members his excitement at having seen the mist

**dispersal of cicada hatchlings** as they were showered from a hole in a tree onto the ground where he presumed they would pupate underground.

- **Sixteen immature emus** accompanied by two males emerged one by one from the bush in front of Geoff Harris at Dadswells Bridge.
- A **Golden Orb Spider** has woven its large golden web above the fence at the Bold Garden Café, at Wesley Hill. Muriel Sovar.
- **Midge Orchids** (Corunostylis sp) are in flower at Barkers Creek and a **Barking Owl** has been calling very close to the house. Geraldine Harris
- Rita Mills saw two **Cockateels** at the creek in Mary St, and two **Restless Flycatchers** at Mt Consultation.
- **Eight Indian Miners** were sighted in a flock near the Pony Club. Ern Perkins
- George Broadway reported the continued presence of **owls** in the weeping Funereal Cypress in the Botanical Gardens. He also had a close encounter with a quince falling from his oak tree – the culprit was probably a Crimson Rosella or White Cockatoo.
- Athol Dorman reported a **Blue-tongued Lizard** against the wall of his house.
- Gunter Liebel has noted **Welcome Swallows** seen swirling overhead.

## Human Accelerated Change in the 21st Century.

On Mar 17, Lesley and I attended the Miegunyah Lecture at Melbourne University, given by Professor Gene Likens, of the Institute of Ecosystem Studies at Millbrook, New York. Professor Likens has been studying a forest in NE USA for 40 years. Included in the study are continuous measurements of stream flows and rainfall, including the quantity and quality. It was well worth the trip to Melbourne. Some of the things I took away from the lecture include:

-Long term measurement is vital; because of natural variation from season to season, long-term trends are only apparent after many years. Many studies are short-term (5 years or less) and may miss important trends.

-An entire catchment was clear-felled. Water run-off increased, but nitrate levels also increased and were well over safe levels, so that the water was not fit to drink.

-Other minerals, including calcium, accompany the nitrate run-off; together these cause important nutrient loss.

-The growth of the forest has stopped. To test whether or not loss of calcium is responsible, calcium, equal to 40 years loss, has been added to the forest. This is a long term (another 40 years) project.

-Research suggests that there should be a 75-year gap between timber harvesting. The US Forest Service now has a 100-year gap in place.

-Good quality streamside vegetation greatly reduces mineral loss, and improves water purity.

-There was a continuing increase in sulphur levels in rainfall (falling as sulphuric acid) until US legislation came into effect, forcing power companies to limit sulphur dioxide emissions. The sulphate level in rainfall has dropped markedly.

-Lyme Disease is prevalent in the region. Lyme Disease has a complex life history,

but research shows that a diverse ecosystem, and particularly a diverse mammal population, greatly reduces the risk of the disease to humans.

There are many questions that we might ask about or local forests. How much nutrient has been lost because of the devastation during the mining period? What is the effect of removing forest products from the forest? What was the effect of streamside destruction during the mining period? What are the consequences of the willows along the streams, and their effect of crowding out the small streamside plants that are vital in purifying the water? Why is the growth of plants in our forest so slow? Why is there an apparent loss of understorey plants?

Ern Perkins

## From the Business Meeting 12/2/04

- **Welcome** to new members: Abbie Heathcote, Felicity Faris and Wendy Ebsworth.
- The DSE arranged for fifteen **pines to be cut down** in the quarry area, near the broom eradication site, in the Botanical Gardens. Unfortunately the use of large vehicles has caused some damage to the immediate area. Types of plants suitable for revegetation will need careful consideration.
- A decision as to whether we want a **web site** and, if so, what should be placed on the web pages still needs to be made. A **discussion paper** setting out the relevant matters that need to be considered is available from Ern Perkins. **Comments from members both with and without internet access would be valuable.**
- **SEANA** (South-east Australian Naturalists' Association ) is planning a **Nature Calendar** and members are invited to contribute material and topics for inclusion (see next months newsletter).

## Extra Events for your Calendar

- **Wed. April 21, 2004. Eltham Copper Butterfly** - free community information session from 7pm to 9 pm. Andrea Cazano, Zoology Dept at Latrobe University will share her current research and knowledge. Castlemaine Enterprise Centre, Ground Floor, Halford St. RSVP Jenni Collier 5470 6940 or 0409 413819
- The next **SEANA Campout** is to be arranged by Darling Range Branch of Western Australian Naturalists' Club during **Spring 2004**. (Details when available)

**Articles Welcome** - Articles, reports and observations can be left at Tonks Bros in Barkers St. or sent to Geraldine Harris, P.O.Box 184, Castlemaine, 3450, Ph. 5474 2244, gedharris @castlemaine.net

Articles need to be submitted by the 4th Thursday of the month.

**Disclaimer** - The opinions expressed in this newsletter are those of the contributors and not necessarily those of the Club.

# Castlemaine Field Naturalists Programme - April, 2004.

**General meetings** are held in the Uniting Church (UCA) hall (enter from Lyttleton St.) at 8.00 pm on the second Friday of each month, except January.
**Excursions** are usually on the Saturday following the general meeting, and leave promptly at the times stated from The Octopus, opposite Castle Motel, Duke Street. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days.
**Business meetings** are held at 27 Doveton Street on the 4th Thursday of each month, except December, at 7.30 pm. All members are invited to attend.
VISITORS ARE WELCOME AT CLUB MEETINGS AND EXCURSIONS

**Fri. Apr. 2. (*note early meeting date)** ***Western Australia.*** Ern Perkins. UCA Hall, 8pm.
**Sat. Apr. 3.** ***Roadside Clean-up.*** Meet near Tait's Carriages, Pyrenees Highway, Castlemaine at 8.30am. Gloves, garbage bags and red safety vests supplied. Wear sturdy footwear.
**Sat. Apr. 3.** ***Mistletoe Walk.*** Leader: Ern Perkins. Leave Octopus at 1.30pm sharp.
**Fri. May 14.** ***Odonata, The Life of Dragonflies & Damselflies.*** Ian Endersby. Ian was awarded the Australian Natural History Medallion in 2002 particularly for his work in the fields of ornithology and entomology. UCA Hall, 8pm.
**Sat. May 15.** ***Heritage Walk:*** Short walk to horse paddock in ***Cobblers Gully from Eureka Reef*** car park. Return for billy tea and damper. Leaders: Ern Perkins & Doug McConville (FOMAD), Ph. 5470 6332. Meet at Market Building, 1.30pm sharp.
**Friday Jun. 11.** ***The Importance of Environmental Flows in Rivers, Streams and Wetlands.*** Dr.Paul Sinclair of Environment Victoria.
**Sat. Jun. 12.** ***Cairn Curran.*** (provisional)
**Fri. Jul. 9.** ***Kimberleys.*** Chris Morris. UCA Hall, 8pm.
**Sat. Jul. 10.** ***Native Trees of Castlemaine.*** Leader: Ern Perkins. Leave the Octopus at 1.30 sharp.
**Thu. Aug. 26.** ***Broom Pull.*** Meet at the Mary St/Froomes Rd. corner at 9am. Wear sturdy footwear, gloves, hat etc. Bring drinks and morning tea.

**2004 Committee** - Chris Morris (President) Ph. 9885 4221, Rita Mills (Vice President and Public Officer) Ph. 54724553, George Broadway (Secretary) Ph. 5472 2513, Hans van Gemert (Treasurer) Ph. 5472 1082, Geraldine Harris (Newsletter Ed) Ph. 5474 2244, Ern Perkins, Richard Piesse, Athol Dorman and Nigel Harland.

**Subscriptions for 2004**
Ordinary membership: Single $22, Family $30
Pensioner or student: Single $19, Family $24
The subscription includes postage of the *Castlemaine Naturalist.*

***Castlemaine Field Naturalists Club, PO Box324, Castlemaine. Incorporation #A0003010B***